



SEQUENCE LISTING

<110> RENNO Toufic
BONNEFOY Jean-Yves

<120> USE OF AN ENTEROBACTERIUM OmpA PROTEIN ASSOCIATED WITH
AN

ANTIGEN FOR GENERATING AN ANTIVIRAL, ANTIPARASITIC OR
ANTITUMORAL CYTOTOXIC RESPONSE

<130> D 17921

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<151> 1999-02-17

<160> 4

<170> PatentIn Ver. 2.1

<210> 1

<211> 1035

<212> DNA

<213> Klebsiella pneumoniae

<220>

<221> exon

<222> (1)..(1032)

<220>

<221> intron

<222> (1033)..(1035)

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<221> CDS

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10

15

tat gca ggt ggt aaa ctg ggt tgg tcc cag tat cac gac acc ggt ttc 96

Tyr Ala Gly Gly Lys Leu Gly Trp Ser Gln Tyr His Asp Thr Gly Phe

20

25

30

tac ggt aac ggt ttc cag aac aac aac ggt ccg acc cgt aac gat cag 144

Tyr Gly Asn Gly Phe Gln Asn Asn Asn Gly Pro Thr Arg Asn Asp Gln
35 40 45

ctt ggt gct ggt gcg ttc ggt ggt tac cag gtt aac ccg tac ctc ggt 192
Leu Gly Ala Gly Ala Phe Gly Gly Tyr Gln Val Asn Pro Tyr Leu Gly
50 55 60

ttc gaa atg ggt tat gac tgg ctg ggc cgt atg gca tat aaa ggc agc 240
Phe Glu Met Gly Tyr Asp Trp Leu Gly Arg Met Ala Tyr Lys Gly Ser
65 70 75 80

gtt gac aac ggt gct ttc aaa gct cag ggc gtt cag ctg acc gct aaa 288
Val Asp Asn Gly Ala Phe Lys Ala Gln Gly Val Gln Leu Thr Ala Lys
85 90 95

ctg ggt tac ccg atc act gac gat ctg gac atc tac acc cgt ctg ggc 336
Leu Gly Tyr Pro Ile Thr Asp Asp Leu Asp Ile Tyr Thr Arg Leu Gly
100 105 110

ggc atg gtt tgg cgc gct gac tcc aaa ggc aac tac gct tct acc ggc 384
Gly Met Val Trp Arg Ala Asp Ser Lys Gly Asn Tyr Ala Ser Thr Gly
115 120 125

gtt tcc cgt agc gaa cac gac act ggc gtt tcc cca gta ttt gct ggc 432
Val Ser Arg Ser Glu His Asp Thr Gly Val Ser Pro Val Phe Ala Gly
130 135 140

ggc gta gag tgg gct gtt act cgt gac atc gct acc cgt ctg gaa tac 480
Gly Val Glu Trp Ala Val Thr Arg Asp Ile Ala Thr Arg Leu Glu Tyr
145 150 155 160

cag tgg gtt aac aac atc ggc gac gcg ggc act gtg ggt acc cgt cct 528
Gln Trp Val Asn Asn Ile Gly Asp Ala Gly Thr Val Gly Thr Arg Pro
165 170 175

gat aac ggc atg ctg agc ctg ggc gtt tcc tac cgc ttc ggt cag gaa 576
Asp Asn Gly Met Leu Ser Leu Gly Val Ser Tyr Arg Phe Gly Gln Glu
180 185 190

gat gct gca ccg gtt gtt gct ccg gct ccg gct ccg gct ccg gaa gtg 624
Asp Ala Ala Pro Val Val Ala Pro Ala Pro Ala Pro Ala Pro Glu Val
195 200 205

gct acc aag cac ttc acc ctg aag tct gac gtt ctg ttc aac ttc aac 672
Ala Thr Lys His Phe Thr Leu Lys Ser Asp Val Leu Phe Asn Phe Asn
210 215 220

aaa gct acc ctg aaa ccg gaa ggt cag cag gct ctg gat cag ctg tac 720
Lys Ala Thr Leu Lys Pro Glu Gly Gln Gln Ala Leu Asp Gln Leu Tyr

225 230 235 240

act cag ctg agc aac atg gat ccg aaa gac ggt tcc gct gtt gtt ctg 768
Thr Gln Leu Ser Asn Met Asp Pro Lys Asp Gly Ser Ala Val Val Leu
245 250 255

ggc tac acc gac cgc atc ggt tcc gaa gct tac aac cag cag ctg tct 816
Gly Tyr Thr Asp Arg Ile Gly Ser Glu Ala Tyr Asn Gln Gln Leu Ser
260 265 270

gag aaa cgt gct cag tcc gtt gtt gac tac ctg gtt gct aaa ggc atc 864
Glu Lys Arg Ala Gln Ser Val Val Asp Tyr Leu Val Ala Lys Gly Ile
275 280 285

ccg gct ggc aaa atc tcc gct cgc ggc atg ggt gaa tcc aac ccg gtt 912
Pro Ala Gly Lys Ile Ser Ala Arg Gly Met Gly Glu Ser Asn Pro Val
290 295 300

act ggc aac acc tgt gac aac gtg aaa gct cgc gct gcc ctg atc gat 960
Thr Gly Asn Thr Cys Asp Asn Val Lys Ala Arg Ala Ala Leu Ile Asp
305 310 315 320

tgc ctg gct ccg gat cgt cgt gta gag atc gaa gtt aaa ggc tac aaa 1008
Cys Leu Ala Pro Asp Arg Arg Val Glu Ile Glu Val Lys Gly Tyr Lys
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<211> 344

<212> PRT

<213> *Klebsiella pneumoniae*

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Leu Gly Ala Gly Ala Phe Gly Gly Tyr Gln Val Asn Pro Tyr Leu Gly
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Phe Glu Met Gly Tyr Asp Trp Leu Gly Arg Met Ala Tyr Lys Gly Ser
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Val Asp Asn Gly Ala Phe Lys Ala Gln Gly Val Gln Leu Thr Ala Lys
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Leu Gly Tyr Pro Ile Thr Asp Asp Leu Asp Ile Tyr Thr Arg Leu Gly
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Gly Met Val Trp Arg Ala Asp Ser Lys Gly Asn Tyr Ala Ser Thr Gly
115 120 125

Val Ser Arg Ser Glu His Asp Thr Gly Val Ser Pro Val Phe Ala Gly
130 135 140

Gly Val Glu Trp Ala Val Thr Arg Asp Ile Ala Thr Arg Leu Glu Tyr
145 150 155 160

Gln Trp Val Asn Asn Ile Gly Asp Ala Gly Thr Val Gly Thr Arg Pro
165 170 175

Asp Asn Gly Met Leu Ser Leu Gly Val Ser Tyr Arg Phe Gly Gln Glu
180 185 190

Asp Ala Ala Pro Val Val Ala Pro Ala Pro Ala Pro Ala Pro Glu Val
195 200 205

Ala Thr Lys His Phe Thr Leu Lys Ser Asp Val Leu Phe Asn Phe Asn
210 215 220

Lys Ala Thr Leu Lys Pro Glu Gly Gln Gln Ala Leu Asp Gln Leu Tyr
225 230 235 240

Thr Gln Leu Ser Asn Met Asp Pro Lys Asp Gly Ser Ala Val Val Leu
245 250 255

Gly Tyr Thr Asp Arg Ile Gly Ser Glu Ala Tyr Asn Gln Gln Leu Ser
260 265 270

Glu Lys Arg Ala Gln Ser Val Val Asp Tyr Leu Val Ala Lys Gly Ile
275 280 285

Pro Ala Gly Lys Ile Ser Ala Arg Gly Met Gly Glu Ser Asn Pro Val
290 295 300

Thr Gly Asn Thr Cys Asp Asn Val Lys Ala Arg Ala Ala Leu Ile Asp
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Cys Leu Ala Pro Asp Arg Arg Val Glu Ile Glu Val Lys Gly Tyr Lys

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330

335

Glu Val Val Thr Gln Pro Ala Gly
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<211> 10

<212> PRT

<213> Homo sapiens

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<223> Peptide derived from the Mart-1/MelanA antigen expressed by melanoma cells.

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<210> 4

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<212> PRT

<213> Homo sapiens

<220>

<223> Derivative of tyrosinase-related protein 2 (TRP-2).

<400> 4

Val Tyr Asp Phe Phe Val Trp Leu
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1

1

